

Guidance for the Development of the
FY 2000 National Defense Authorization Act
(NDAA) Long-Term Stewardship Report

January 24, 2000

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1.0 INTRODUCTION

1.1 Organization of Document

This document provides guidance to Department of Energy (DOE) Operations Offices and Field Offices about ongoing and planned long-term stewardship activities for the FY 2000 National Defense Authorization Act Long-Term Stewardship Report (NDAA LTS Report) data collection and report preparation.

Section 1.0 Provides background on the NDAA Congressional mandate, details the Report schedule, discusses how the Report will be implemented, outlines some of the programmatic assumptions, and provides contact information.

Section 2.0 Defines basic terminology and portions.

Section 3.0 Describes the data, map, and text collection processes.

Section 4.0 Provides the Annotated Site Outline for sites with one or two portions and sites with multiple portions.

1.2 Background

Headquarters is requesting this information on long-term stewardship for a number of reasons:

(1) *The FY 2000 NDAA LTS Report responds directly to a Congressional mandate*

The primary purpose of the data collection is to respond to the FY 2000 NDAA mandate regarding the Department of Energy's long-term stewardship obligations. The complete NDAA language as enacted is provided in Appendix A. The Congressional mandate has three important aspects. First, Congressional staff are increasingly aware that DOE's liability will not be eliminated when "cleanup" is complete, and are interested in understanding the estimated size of that liability. Second, members of Congress and their staff have expressed a strong interest in learning as much as possible about not only sites where cleanup and stabilization are, and will be, complete, but also "portions of sites" as part of building a credible long-term stewardship program. Third, there is a growing sense that:

- (a) Congress has appropriated to DOE substantial funding during the past 10 years of the Office of Environmental Management (EM) program (nearly \$60 billion) and both DOE and the relevant Congressional Committees need to demonstrate the degree of success that EM has had to date, and
- (b) There is a concern that EM is not containing waste, but is instead "going overboard" and wasting resources on excessive cleanup activities beyond what is required to protect human

health and the environment.

A solid response to the NDAA LTS Report data collection should address these concerns.

- (2) *Congressional staff have indicated interest in a report on long-term stewardship planning and responsibilities*

During consideration of the FY 2000 NDAA and in subsequent discussions, DOE Headquarters staff heard from Hill staff the specific and broad Congressional interests behind the report language. The principal committee responsible for the NDAA LTS Report language, the Senate Armed Services Committee, also has responsibility for authorizing the entire Department of Energy's 050 (National Security and Defense) budget.

Congressional staff want the best available information. On a number of occasions, Hill staff have stated that they understand that the current information is not perfect, especially for cleanup and stabilization projects. These Hill staffers believe strongly that the 1995 and 1996 Baseline Environmental Management Reports (BEMR) drove the Department to improve its life cycle planning towards the *Ten Year Plan* and *Paths to Closure* efforts that are intended to reduce life-cycle costs. They hope that the NDAA LTS Report will promote similarly rigorous planning for long-term stewardship. As with the BEMR effort, there is an understanding that all planning estimates require numerous assumptions and caveats.

- (3) *Assistant Secretary Carolyn Huntoon has emphasized the importance of long-term stewardship in her six principles for the Office of Environmental Management*

DOE senior policy makers, such as Assistant Secretary Huntoon and Undersecretary Moniz, have expressed specific interest in long-term stewardship. This is evident from Dr. Huntoon's presentation of her six principles, including long-term stewardship. Assistant Secretary Huntoon has now spoken at several sites and public forums around the country as well as before Congress on her six principles. These senior policy makers have placed a particular emphasis on the need for a better understanding of the existing management roles and responsibilities for long-term stewardship and the relationship between long-term stewardship and science and technology needs. To respond to these very basic questions, we are requesting a few pieces of information in addition to that required for the NDAA and the lawsuit settlement mandates. For example, estimates of extent of residual contamination and of the cost and duration of long-term stewardship activities provide a strong basis for identifying and prioritizing the research of innovative long-term stewardship techniques.

- (4) *State and local governments have expressed interest in the long-term stewardship activities*

In addition to the NDAA mandate, the Department is required to prepare a study on long-term

stewardship pursuant to a lawsuit settlement agreement (*Natural Resource Defense Council, et. al. v. Richardson, et. al., Civ. No. 97-963 (SS) (D.D.C. Dec. 12, 1998)*). Although this lawsuit settlement did not explicitly mandate specific information requirements, the legally mandated scoping process has revealed a consistent interest in certain information from a variety of state and local governments and other stakeholders (*Federal Register / Vol. 64, No. 193, pp. 54279-54281 / Wednesday, October 6, 1999*). For example, State and local governments are interested in information that documents the responsible steward and the anticipated period over which long-term stewardship is planned for each site. Much of the information of interest will already be met through the NDAA mandated requirements defined in the companion User's Manual. However, a few pieces of limited information will be required to ensure that the lawsuit settlement mandate can be fulfilled with sufficient credibility and will be requested under a separate cover.

1.3 Schedule

Appendix B provides a detailed outline of the NDAA LTS Report schedule. The Congressional mandate to submit the report by October 1st imposed a very tight deadline. Moreover, the time needed to gain concurrence requires that we plan and meet a very aggressive schedule. As identified in Appendix B, the following dates are the major NDAA LTS Report milestones:

January 24 th	Deployment of the web-based data collection tool
March 10 th	Submittal of draft Field information (data, maps, text)
March 31 st	Completion of data review (data frozen)
July 31 st	Transmittal of draft report for concurrence
October 1 st	Transmittal of final report to Congress

1.4 Relationship to EM Program Activities

The NDAA LTS Report information collection and document preparation activities should be considered in context with two EM endeavors, a study on long-term stewardship and the collection of information on the Integrated Planning and Budgeting System - Information System (IPABS-IS).

First, the Department is preparing a "study" on long-term stewardship pursuant to the lawsuit settlement (*Natural Resource Defense Council, et. al. v. Richardson, et. al., Civ. No. 97-963 (SS) (D.D.C. Dec. 12, 1998)*). This study, in contrast to FY 2000 NDAA LTS Report, is less focused on (although not devoid of) site-specific and portion-specific data. The study will address national, programmatic, and cross-cutting issues (not site-specific issues) related to long-term stewardship, such as options for financing, legal requirements, and program structure. The legal settlement agreement requires that DOE conduct a public scoping process and issue a draft study for public comment following relevant National Environmental Policy Act (NEPA) regulations. Headquarters staff are closely coordinating the study with the NDAA LTS Report and expect that the two activities will complement each other.

Second, collection of information for the NDAA LTS Report is occurring separately from the annual

EM planning data collection as part of IPABS-IS. While these two information collection processes are closely coordinated, there are several reasons for the separate collection systems:

- The NDAA LTS Report data collection is a one-time data effort responding to a specific Congressional request.
- The tight deadline imposed on the Department requires that we plan and meet a very aggressive schedule that does not coincide with IPABS-IS deadlines.

1.5 Public Participation

As with most public participation activities, each field office should determine the level and type of appropriate public participation. However, it is strongly recommended that each field office plan to involve the public in the development of the information provided to respond to the Congressional report mandate. As you know, openness has been key to earning stakeholder trust and confidence, which has been essential to making progress and reducing overall costs for the EM program. Given that the information should be based on available non-classified and non-proprietary information, there should be no conflict with sharing this information with the public. In some cases, field office staff have already provided stakeholders at their site with copies of the draft guidance document, and discussed the potential response with them at forums such as SSAB meetings. Governor Sunquist of Tennessee explicitly raised this issue with Secretary and included it in the text of the agreement signed at the 1999 Summit in Denver by both the Governor and the Secretary which requires that the Department share the information with the state and stakeholders before it is reported to Congress. Other states are now asking for the same level of involvement as Tennessee.

1.6 Programmatic Planning Assumptions

The NDAA data collection requires a number of programmatic assumptions:

- All DOE sites need to reply to this data request, as this data collection applies to all DOE sites, whether designates EM sites or designated as Defense Programs, Office of Science, Nuclear Energy, or other DOE offices.
- Data provided for the NDAA LTS Report is for planning purposes only and in no way indicates any preferences or preempts any ongoing or future regulatory processes.
- Headquarters is also aware that there is uncertainty associated with many of the data elements requested and that Field staff may be required to make assumptions and estimates based on the best available understanding of the site. Such assumptions need to be clearly documented.
- The information provided in the one-time data call must be consistent with life-cycle planning assumptions in Chapter 4 of the Integrated IPABS-IS guidance, including completion

definitions, completion dates, end states, assumed landlord responsibilities, and estimated stewardship costs.

1.7 Points of Contact

If you have any questions regarding the programmatic issues, site portions, data collection, or maps, contact the following:

Points of Contact		
Questions Regarding	DOE	Contractor
Programmatic Issues	Jonathan Kang (202) 586-5182 - DC Office (301) 903-7178 - Germantown Office Jonathan.Kang@em.doe.gov James Werner (202) 586-9280 James.Werner@em.doe.gov	
Site Portions	Jonathan Kang (202) 586-5182 - DC Office (301) 903-7178 - Germantown Office Jonathan.Kang@em.doe.gov	Kyle Tanger (703) 748-7069 ktanger@ppc.com Mike Hashem (703) 748-7031 mhashem@ppc.com
Data Elements	Jonathan Kang (202) 586-5182 - DC Office (301) 903-7178 - Germantown Office Jonathan.Kang@em.doe.gov	Meg Reynolds (703) 748-7088 mreynolds@ppc.com Mike Hashem (703) 748-7031 mhashem@ppc.com
Map Collection	Andrew Duran (202) 586-4548 Andrew.Duran@em.doe.gov	Kevin Wright (703) 218-2647 kwright@icfconsulting.com
Data Collection Tool Hotline		8:00 AM to 6:00 PM EST (703) 748-7105 ndaa_admin@ppc.com

2.0 OVERVIEW OF DEFINITIONS

The following sections define the terms used for the purposes of this guidance and define portion (the unit of analysis for the Report).

2.1 Definition of Basic Terminology

Site A list of geographic sites expected to require stewardship was developed for *From Cleanup to Stewardship* (Background Report). See Appendix C for the list of NDAA sites and portions.

Portion A subset of a site for which information was explicitly requested by congress. Described further in Section 2.2.

Medium Type Soil, groundwater, surface water/sediment, facilities, and engineered units (e.g., disposal cells and tanks).

Cleanup Completion Using the *Paths to Closure* site cleanup completion definition, cleanup at each portion is considered complete when

- C Deactivation or decommissioning of all facilities currently in the EM program has been completed, excluding any long-term surveillance and monitoring;
- C All releases to the environment have been cleaned up in accordance with agreed-upon cleanup standards;
- Groundwater contamination has been contained, and long-term treatment or monitoring is in place;
- Nuclear materials have been stabilized and/or placed in safe long-term storage; and
- Legacy waste has been disposed of in an approved manner (legacy waste was produced by past nuclear weapons production activities, except for High Level Waste).

Long-Term Stewardship All activities necessary to ensure protection of human health and the environment following completion of cleanup, disposal, or stabilization at a site or a portion of a site. Long-term stewardship includes all engineered and institutional controls designed to contain or prevent exposures to residual contamination, such as surveillance activities, record-keeping activities, inspections, groundwater monitoring, ongoing pump and treat activities, cap repair, maintenance of entombed buildings or facilities, maintenance of other barriers and containment structures, access control, and posting signs. Long-term stewardship also includes the storage of materials not defined as waste for which there

is no planned or funded use.

2.2 Portion Definition

A portion of a site is a geographically contiguous and distinct area for which cleanup, disposal, or stabilization has been completed or is expected to be completed by approximately the end of calendar year 2006 and where residual contamination remains. A portion may involve any or all of the following media: soil, groundwater, surface water/sediment, a facility, or an engineered unit. A portion can also be an aggregate of a number of facilities, soil sites, or engineered units that meet the following criteria: (1) all have similar contaminants; (2) they are closely located; and (3) all require similar long-term stewardship activities. A portion of a site can only have one record for each media type. Headquarters staff recognize each site is unique and will be flexible by addressing issues on a site-by-site basis. The goal is to describe with reasonable detail the sites in a way that is useful for programmatic and site management (particularly to post closure site managers and users).

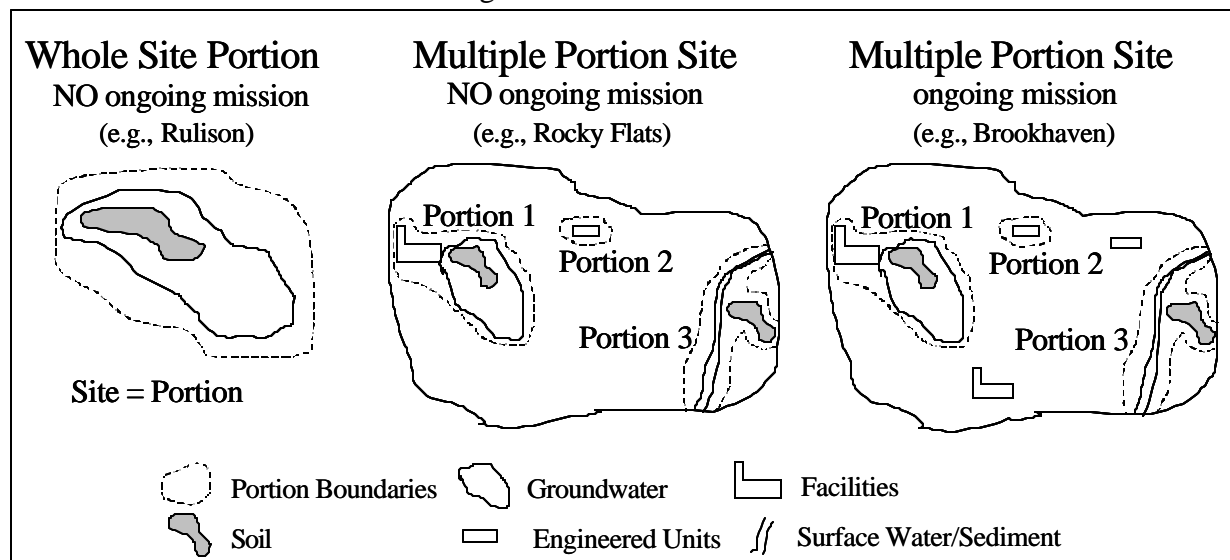
Examples of portions of sites include the following (figure 2.1):

- A facility or engineered unit, a part of a facility or engineered unit (i.e., capped cells as part of larger disposal facility), or a group of closely-located facilities and/or engineered units that have been stabilized and require the same long-term stewardship activities.
- Areas that have residually-contaminated soil, surface water/sediment, or groundwater; are closely located; and require long-term stewardship. Because the aerial extent of groundwater may overlap with a number of the portions of site, we recommend that residually-contaminated groundwater be designated as a separate portion.
- A geographically distinct area with multiple media that have similar contaminants and discrete long-term stewardship activities that are performed for that area.
- One or several facilities in interim safe storage in close proximity.
- A very small site (e.g., Rulison, Colorado) with no other ongoing mission and the whole site is managed with similar long-term stewardship activities.

Please do not designate as a portion the following:

- A multiple mission site.
- A functional grouping, such as a project baseline summary (PBS) as it is defined in *Paths to Closure* and IPABS-IS for the purpose of managing pre-closure activities. In cases where PBSs are organized geographically, they may be suitable portions.

Figure 2.1: Portions of Sites



Revisions to the list of proposed portions (provided in Appendix C) require consultation with Headquarters. Please contact Jonathan Kang at (202) 586-5182 (Jonathan.Kang@EM.DOE.gov) before revising the list of portions.

3.0 DATA, MAP, AND TEXT COLLECTION

In response to recommendations from Field office staff, NDAA LTS information is being collected in a sequential “building-block” manner. Initially, Field staff provided lists of sites and portions of sites which serve as the basic “units of analysis” for the NDAA LTS Report. Information will be collected in the following blocks:

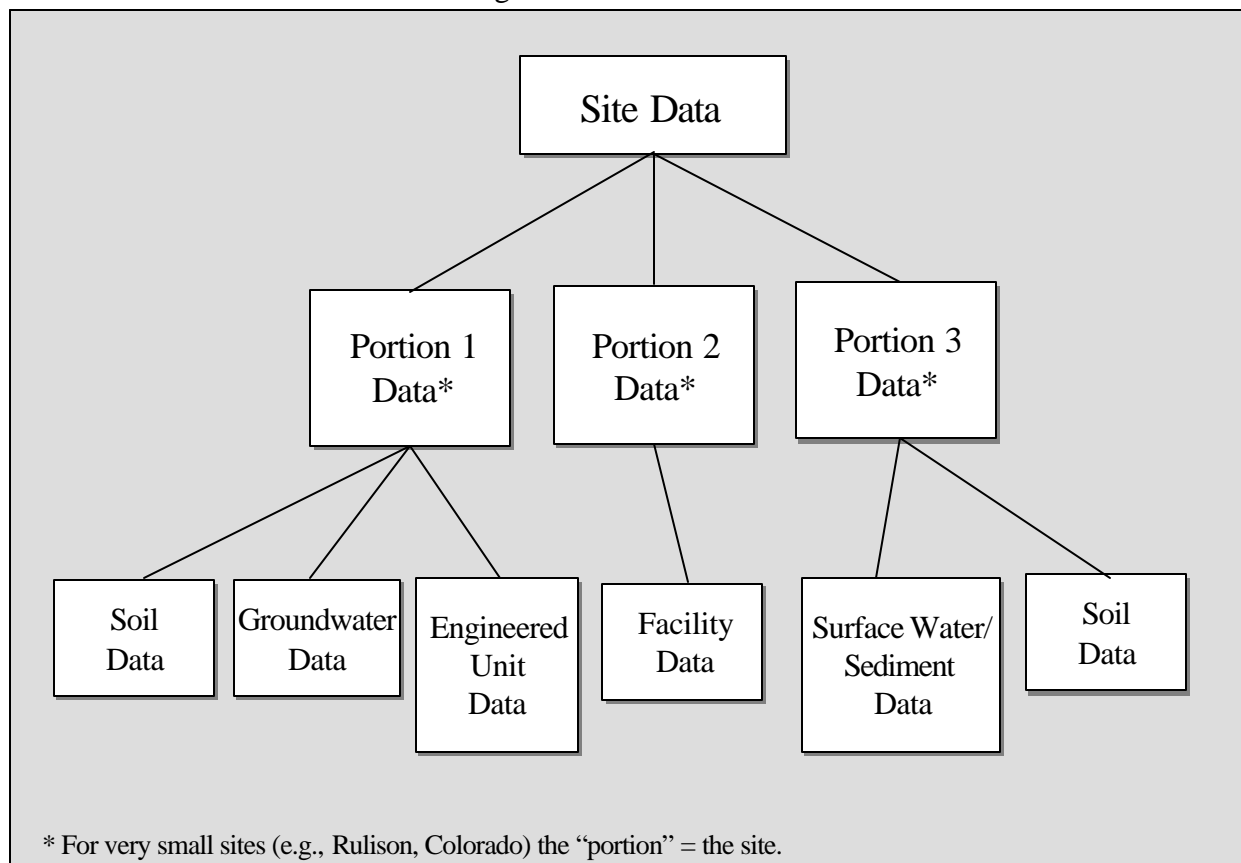
- C quantitative data (e.g., acreage, cleanup standards used, and estimated costs),
- C geographic maps, and
- C descriptive text.

The following sections provide a discussion of the data, map, and text collection processes.

3.1 Data Element Collection

Headquarters is collecting data at two levels: (1) site level, and (2) portion level (as portion has a fixed number of media elements, it is characterized as one data level). Figure 3.1 displays the data element structure.

Figure 3.1: Data Structure



The companion User's Manual includes the list of the data elements required for the NDAA LTS Report and their definitions. Instructions and screen shots of the NDAA Long-Term Stewardship Data Collection System are provided in the User's Manual. The User's Manual will be provided as a PDF file along with the guidance and can also be downloaded in PDF format from the data collection tool.

The NDAA Long-Term Stewardship Data Collection System is a web-based tool that has been designed to collect all of the data elements required for the NDAA LTS Report. This site is located at <http://ndaa.longtermstewardship.net>. Field staff can enter data through March 10th. Field staff will continue to be able to access the tool through March 31st for editing data based on Field/Headquarters review. Data are requested for all of the portions identified in Appendix C.

Where possible, Headquarters staff have seeded the data collection tool with information previously submitted by Field staff through the Background Report and IPABS-IS. Seeding focused on the site level for all sites and portion level for single portion sites (e.g., Grand Junction sites). Similarly, existing maps or text will be utilized to the maximum possible extent. The goal of the process is to provide as complete a picture of long-term stewardship requirements as possible with the smallest burden possible on Field staff, consistent with Congressional reporting and program management requirements.

A help desk is available to assist Field staff with any questions. Contact the help desk by calling (703) 748-7105 or e-mailing ndaa_admin@ppc.com. The help desk will be staffed Monday - Friday from 8:00 a.m. to 6:00 p.m. EST. In addition, the welcome screen in the web-based tool has a link that will allow the user to e-mail questions to the system administrator.

Collection Milestones

- C In November and December, Field staff discussed portions for which data will be reported.
- C The data collection tool will be accessible by the Field sites on January 24th.
- C Draft data are due March 10th.
- C The database will be locked on March 31th. Data will be considered final on this day. Subsequent changes will only be made under unusual circumstances in cooperation with Filed office and Headquarters staff.

3.2 Map Collection

Long-term stewardship data are based on geographically distinct site portions. Therefore, the NDAA LTS Report will incorporate maps to describe the site, portion, and extent of residual contamination. This section describes the maps and map data required for the NDAA LTS Report and options for map submittal.

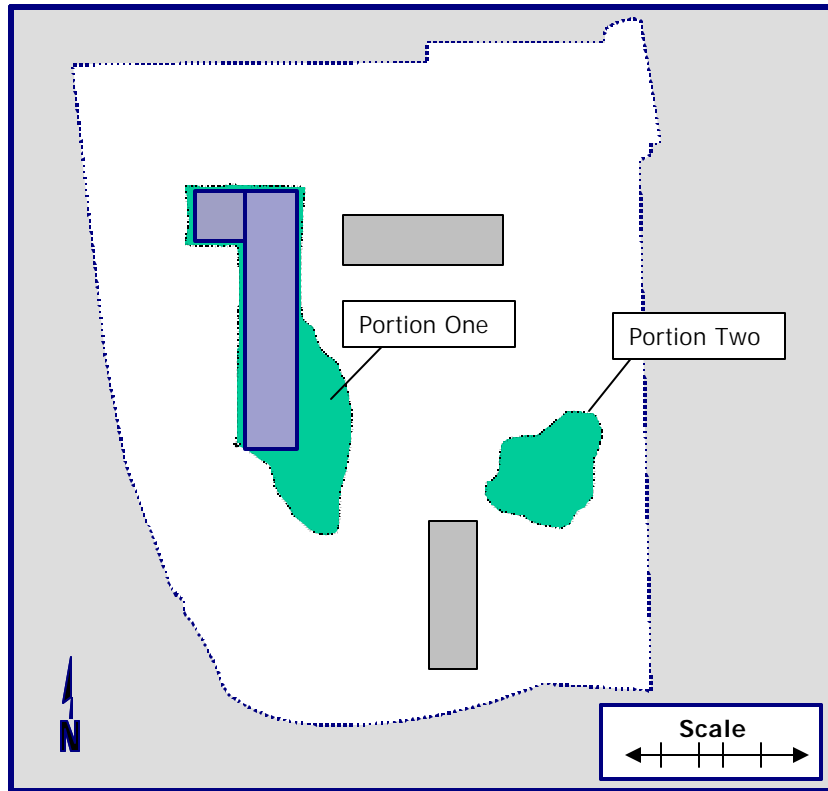
3.2.1 Map Requirements

Headquarters is collecting spatial data in order to develop one data set for each site. Staff will use the data set to create the three types of maps described below.

- (1) *Site map with portions identified.* This map demonstrates the relationship of portions to the site and its features. Map data should include:
 - site boundary
 - a reasonable area around the site boundary to illustrate the context in which the site resides
 - major cartographic features to include roads, fences, rivers, lakes and other distinctive natural and man-made features
 - existing facility footprints
 - portions with site portion identifier

Example of data requirements for site map showing relationship of portions and features to site:

Site Map (as of end of 2006) with Two Portions Identified



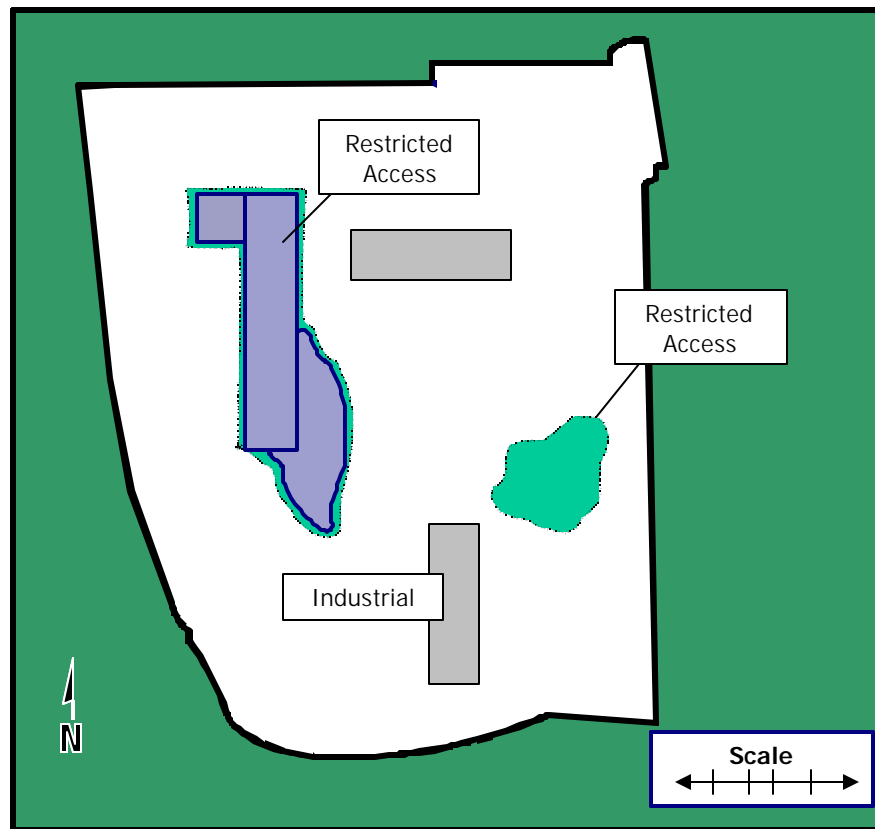
Map Drawn 1/1/2000

(2) *Site map with land uses identified.* This map identifies planned or Record of Decision (ROD) defined land-use designations. This data should include:

- all the features of the site maps
- delineation of site into sections by afforded land use

Example of land use data requirements:

**Site Map with Afforded Land Uses Identified
(Upon Site Cleanup Completion)**

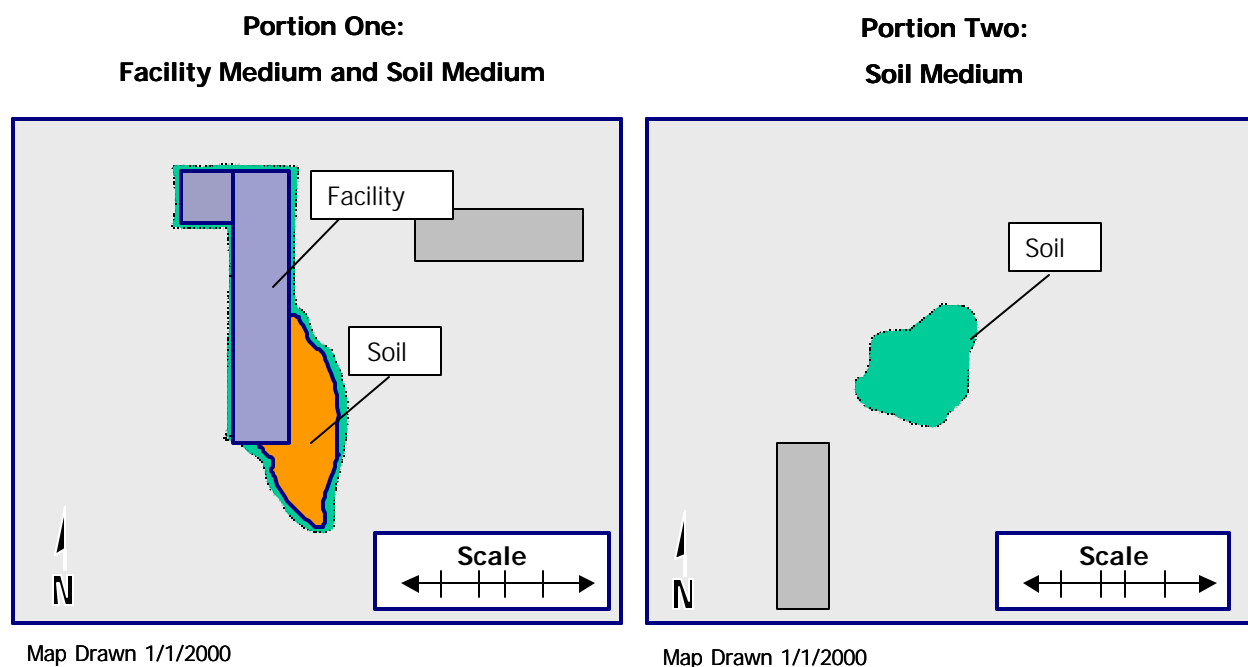


Map Drawn 1/1/2000

(3) *Portion level data for each medium type.* This map zooms in on a specific portion and identifies all of the medium types within that portion. This data requirement varies based on the media type. For facilities and engineered units, portion maps should outline the footprints. For soil and surface water/sediments, the portion maps should outline the extent of the residually contaminated soil, where known. Additionally this data should:

- indicate portion identifier
- show appropriate additional detail for each portion

Example of data requirements for portion maps:



3.2.2 Map Submittal Options

Headquarters staff will be working closely with the sites to minimize Field staff burden. Headquarters staff are available to respond to Field staff questions and to provide further guidance (see Section 1.6). Three map submittal options are available to the Field sites:

Option 1: Suitable for sites with the required map data elements (specified in Section 3.2.1) in a Geographic Information System (GIS) meeting the current Content Standard for Digital Geospatial Metadata put forth by the Federal Geographic Data Committee. This is the preferred method to submit data. The following formats are acceptable:

- ARC/INFO Coverages
- ARC/INFO Export Files

- Arc/View Shapefiles
- MapInfo Tab files
- MapInfo MID/MIF
- AutoCad DXF files
- Maptitude MAP files
- Intergraph/MicroStation Design

Electronic data may be submitted via e-mail to ndaamaps@icfconsulting.com, or data can be submitted via FTP to maps.icfconsulting.com.

Option 2: If the Field site has data (either electronic or hard copy) in any other geographic format that does not meet the requirements of option 1, Field staff may submit these data. These data should have at least two discernable geographic points (for example: a designated latitude/longitude point, intersection of two major labeled roads).

Electronic data may be submitted via e-mail to ndaamaps@icfconsulting.com, or data can be submitted via FTP to maps.icfconsulting.com.

Option 3: If the Field site does not have the required spatial data in an electronic format, Headquarters staff will provide appropriate hard copy base maps that can be annotated with the required attributes. Base maps will be provided to the sites by January 31st and should be returned to Headquarters by March 10th. Headquarters staff will integrate the map data with other data collected from the sites and send a draft series of maps back to the sites for the final review by Field staff.

3.2.3 Collection Process and Milestones

Headquarters staff will survey the sites to determine how the Field sites plan to submit data. At this time a Headquarters representative will assist Field sites in determining the submittal option with the least burden. Currently, Headquarters plans to employ GIS to reformat the submitted map data into a consistent scale and style for the NDAA LTS Report. After Headquarters staff have made the various submitted maps consistent, Field sites will have the opportunity to review the draft maps.

- C The deadline for submitting the draft maps is March 10th.
- C Headquarters staff will work with the submitted materials to make the format more consistent and will make the revised maps available for review as they are developed. Sites will be allotted two weeks to comment on the maps.

3.3 Site Summary Text Development

The NDAA LTS Report is expected to be comprised of two volumes:

- C Volume One: Complex-Wide Summary, and
- C Volume Two: Site Summaries

Volume Two will incorporate site summaries for all sites where EM cleanup activities occurred, or where DOE has long-term stewardship responsibilities or potential cleanup liability.

The site summaries will summarize the long-term stewardship responsibilities for portions of sites completed by the end of 2006. This information will be based on the data collected in the web tool. While the information collected for the NDAA LTS Report overlaps information in the Background Report, the NDAA LTS Report data focuses on a lower level of detail, the site portion. Headquarters recognizes that since the Congressional mandate focused on activities completed by 2006, the results will be a snapshot in time. Additional information is needed to place this snapshot in context with cleanup accomplishments (especially those that require no long-term stewardship or where the Department has no future liability) and long-term stewardship responsibilities for cleanup activities that will not be completed by 2006.

To integrate the various pieces needed for the sites summaries, a team of Headquarters staff has been mobilized to consolidate the site-specific data collected for the portions, the required maps, information from IPABS-IS, and additional textual information from the Background Report and other sources. In early January, Headquarters staff will begin pulling together information from existing sources to prepare the site summaries. In March, these staff will coordinate the data review process and work to finalize each site's data. The finalized data will be incorporated into the site summaries. Headquarters staff will work with Field staff to develop the additional text during the draft site summary development phase (March - June). Draft site summaries will be provided for Field staff to review and finalize.

4.0 ANNOTATED SITE OUTLINE

This section provides two outlines: (1) one for a site with one or two portions, and (2) one for a site with multiple portions.

4.1 Annotated Site Outline for Sites with One or Two Portions

NDAA LTS Report DRAFT Annotated Site Outline - Volume II

12/09/99

1.0 Site Summary

[A brief abstract with a description of the site, its history and current and planned mission. 1.0 provides information on the site conditions and parties responsible for site stewardship and costs.]

Example Highlight for Site X
Landlord - Office of Environmental Management
Major LTS Activities - Surveillance & Monitoring
Site Portions - ERDF Cells, B and F Reactors
Site-Wide Annual LTS Cost - \$ Millions
Portions in LTS as of 2000
Total Site Area - Total Acreage

1.1 Site Description (BEMR and LTS Background Report)

C *Provide brief site description*

1.2 Site Missions (BEMR and IPABS)

C *EM and non-EM*
C *Role in weapons or research*
C *Current mission(s)*
C *Planned mission(s) [i.e. ROD signed and/or activities/mission funded by Congress already]*

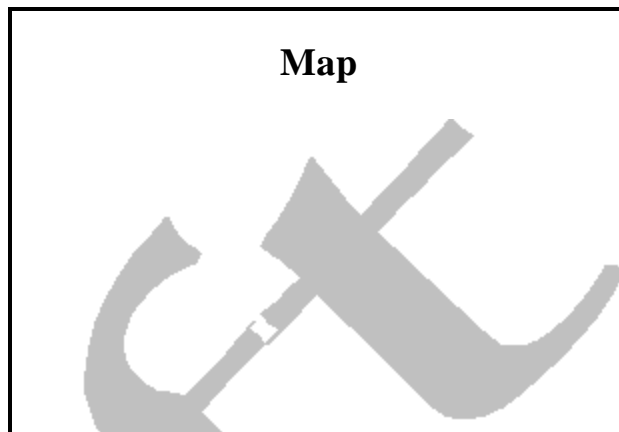
1.3 Site Cleanup and Accomplishments (IPABS and PTC)

C *General Cleanup Strategy and Priorities*
C *Completions/Accomplishments to date*
C *Site conditions, end result, contaminants, how managing the contaminants*

[Graphic/Bar chart on the percent of the number of release sites and facilities completed by 1999, and those completed by 2006.]

1.4 Assumptions

- C *Assumptions used in developing the cost data, uncertainties, inclusions, exclusions, etc.*
- C *What does X pay for?*



2.0 Site Level Long-Term Stewardship Discussion

[2.0 provides overview information regarding site-wide stewardship activities. Incorporate text boxes for summary information. This section discusses the LTS goals of the site portion. 2.0 describes the specific portion of analysis, mission, history, what it is, long-term stewardship activities, costs, physical characteristics. Provides graphic depiction of the portion.]

2.1 Overview: LTS Goals and Activities

- C *Describe the overall LTS activities.*
- C *Describe organizational responsibilities for LTS at the site or for each portion of the site.*
- C *Describe compliance oversight (e.g. state or NRC inspections or desk reviews), who is involved, what do they do.*
- C *How is LTS paid for? Which PBS, etc, are LTS Funds included in? How is budget done (e.g. how are LTS costs estimated).*
- C *Describe real property management - overall site ownership (address portions below). Who manages the property. What are the disposition paths (e.g., if DOE remains as the owner and manager, or reverts to GSA or to BLM).*

Site X LTS Goals

Text box (or pull out) highlighting the LTS goals of the site. This describes the goals of the LTS activities, e.g. prevent contaminated groundwater from reaching the Columbia River.

Long-Term Stewardship Information (Proposed Table Format)

PORTION	DESCRIPTION	LTS BEGINS FISCAL YEAR	LTS ENDS FISCAL YEAR	ESTIMATED COSTS
Portion A				
Portion B				

2.2 Description of Portion A

- C *Describe, at a general level, the portions of the site.*
- C *Describe the size of the portions*
- C *Describe the nature and volume of residual waste and contamination, etc.*
- C *Describe the target cleanup levels.*
- C *Describe the remedy in place for each portion.*
- C *Describe general LTS activities for each*
- C *History and current and future mission (s) (if appropriate)*
- C *Institutional and engineered controls*
- C *Acres by land use afforded*
- C *Geology, ecology, geographic distinctness, engineered unit, facilities, etc.*
- C *Who is responsible for LTS, is this stable over time?*
- C *What hazards remain?*
- C *What are the key risks/exposures to be avoided?*
- C *What are the key things we hope to accomplish in LTS?*
- C *What are the key uncertainties? what are the contingency plans?*

2.2.1 Medium (includes narratives as appropriate - each medium should be addressed separately)

- C *Soil*
- C *Groundwater*
- C *Surface water/sediment*
- C *Engineered units*
- C *Facilities*

Portion A Diagram

2.2.2 Regulatory Regime

- C *Discuss the regulations governing the portion*

2.3 Description of Portion B

- C *Describe, at a general level, the portions of the site.*
- C *Describe the size of the portions*
- C *Describe the nature and volume of residual waste and contamination, etc.*
- C *Describe the target cleanup levels.*
- C *Describe the remedy in place for each portion.*
- C *Describe general LTS activities for each*
- C *History and current and future mission (s) (if appropriate)*
- C *Institutional and engineered controls*
- C *Acres by land use afforded*
- C *Geology, ecology, geographic distinctness, engineered unit, facilities, etc.*
- C *Who is responsible for LTS, is this stable over time?*
- C *What hazards remain?*
- C *What are the key risks/exposures to be avoided?*
- C *What are the key things we hope to accomplish in LTS?*
- C *What are the key uncertainties? what are the contingency plans?*

2.3.1 Medium (includes narratives as appropriate - each medium should be addressed separately)

- C *Soil*
- C *Groundwater*
- C *Surface water/sediment*
- C *Engineered units*
- C *Facilities*

Portion B Diagram

2.3.2 Regulatory Regime

- C *Discuss the regulations governing the portion*

2.4 Institutional and Engineered Controls

- C *Describe the site-wide institutional and engineered controls performed or planned for the site that apply to the whole site.*
- C *Describe surveillance and maintenance, ongoing groundwater treatment, monitoring, security measures, use restrictions, deed restrictions, physical barrier, access controls, and frequency and duration of these activities.*

2.5 Record Keeping Activities

- C Who is responsible for the record keeping?
- C Where are the records? Where are they maintained?
- C Where do the records go? Who will maintain them?
- C What types of records are being kept?
- C How frequently are they updated?

2.6 Local Community Interaction

LOCAL COMMUNITY INTERACTIONS

[This is an example of a text box for depicting local community interaction related to long-term stewardship. This narrative describes how stakeholders have (or will have) been involved in decisions affecting the site's long-term stewardship activities now and by the end of 2006. Includes avenues for input, such as public meetings, forums, and advisory boards. Describes how stakeholder concerns were addressed in the development of final plans. Also includes contact information.]

3.0 Estimated Long-Term Stewardship Costs

[3.0 provides anticipated or estimated long-term stewardship costs (when available) for the site at a high-level. Annual cost from 2000-2010 or period costs in 5-year increments from 2010-2070 for all LTS activities specific to a medium].

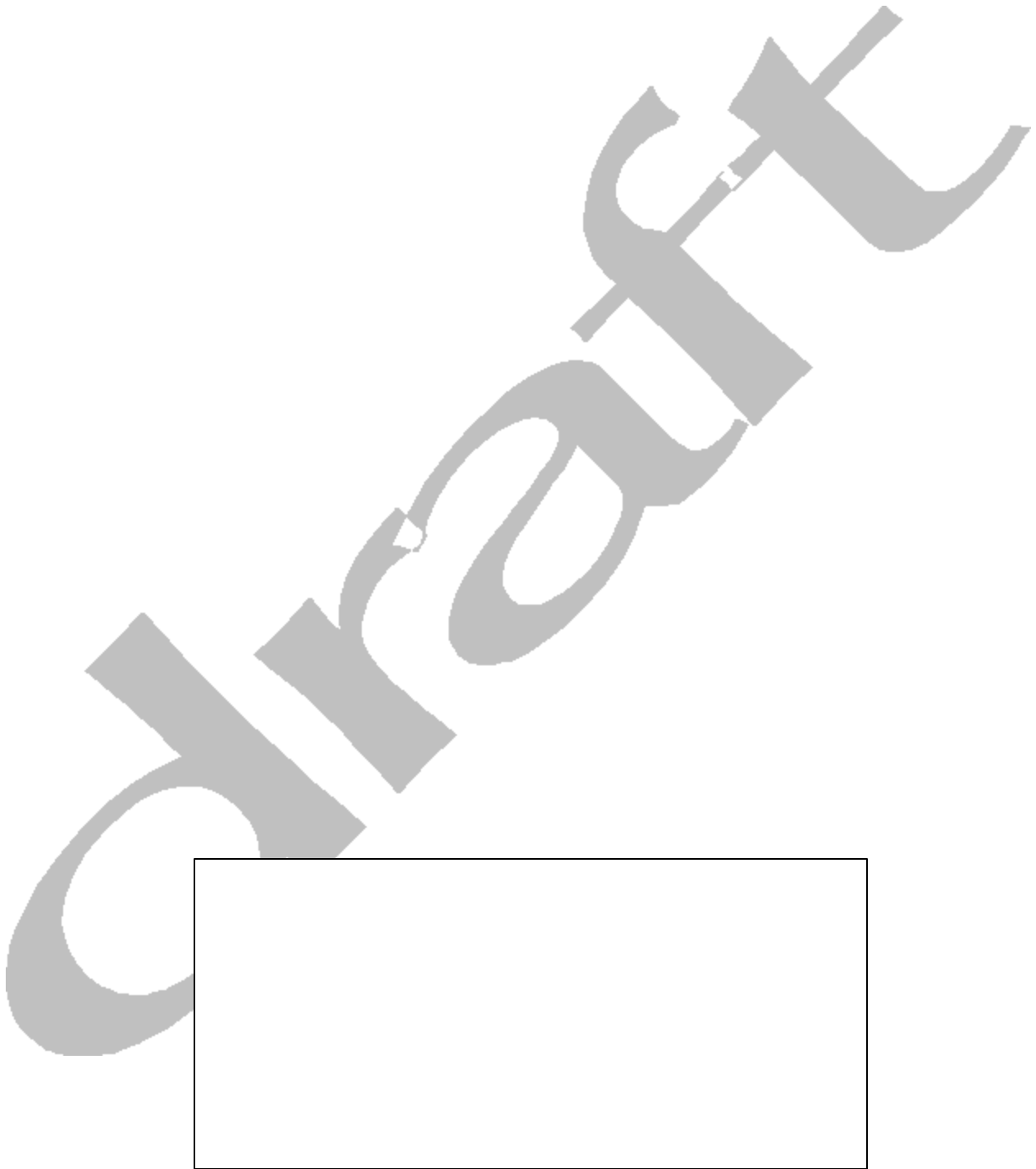
Estimated LTS Costs

Portion	(Five-Year Averages, Thousands of Constant 2000 Dollars)								Est. Total
	FY 2000	2005	2010	2015	2020	2025	2030	FY 2035 - FY 2070	
Portion A									
Portion B									

4.0 Future Uses

[4.0 describes the different land areas based upon the use afforded. Includes acreage for the particular land use, such as agricultural, industrial, etc. 4.0 will discuss the relationship between land use and long-term stewardship.]

Land Use Map



4.2 Annotated Site Outline for Sites with Multiple Portions

NDAALTS Report DRAFT Annotated Site Outline - Volume II

12/09/99

1.0 Site Summary

[A brief abstract with a description of the site, its history and current and planned mission. 1.0 provides information on the site conditions and parties responsible for site stewardship and costs.]

Example Highlight for Site X

Landlord - Office of Environmental Management

Major LTS Activities - Surveillance & Monitoring

Site Portions - ERDF Cells, B and F Reactors

Site-Wide Annual LTS Cost - \$ Millions

Portions in LTS as of 2000

Total Site Area - Total Acreage

1.1 Site Description (BEMR and LTS Background Report)

C *Provide brief site description*

1.2 Site Missions (BEMR and IPABS)

C *EM and non-EM*

C *Role in weapons or research*

C *Current mission(s)*

C *Planned mission(s) [i.e. ROD signed and/or activities/mission funded by Congress already]*

1.3 Site Cleanup and Accomplishments (IPABS and PTC)

C *General Cleanup Strategy and Priorities*

C *Completions/Accomplishments to date*

C *Site conditions, end result, contaminants, how managing the contaminants*

Map

[Graphic/Bar chart on the percent of the number of release sites and facilities completed by 1999, and those completed by 2006.]

1.4 Assumptions

- C *Assumptions used in developing the cost data, uncertainties, inclusions, exclusions, etc.*
- C *What does X pay for?*

2.0 Site Level Long-Term Stewardship Discussion

[2.0 provides high-level information regarding site-wide stewardship activities. Incorporate text boxes for summary information. This section discusses the LTS goals of the site. 2.0 describes the rationale for how DOE has divided up and organized portions of the site in the analysis (what constitutes a “unit”) and the relationship to the whole geographic site if relevant.]

2.1 Overview: LTS Goals and Activities

- C *Describe the LTS activities, disposal or stabilization, etc.*
- C *Describe organizational responsibilities for LTS at the site or for each portion of the site.*
- C *Describe compliance oversight (e.g. state or NRC inspections or desk reviews), who is involved, what do they do.*
- C *How is LTS paid for? Which PBS, etc, are LTS Funds included in? How is budget done (e.g. how are LTS costs estimated).*
- C *Describe real property management - overall site ownership (address portions below). Who manages the property. What are the disposition paths (e.g., if DOE remains as the owner and manager, or reverts to GSA or to BLM).*

2.2 Overview of Portions and Medium

- C *Describe, at a general level, the portions of the site.*
- C *Describe the size of the portions*
- C *Describe the nature and volume of residual waste and contamination, etc.*
- C *Describe the target cleanup levels.*
- C *Describe the remedy in place for each portion.*
- C *Describe general LTS activities for each*

Site X LTS Goals

Text box (or pull out) highlighting the LTS goals of the site. This describes the goals of the LTS activities, e.g. prevent contaminated groundwater from reaching the Columbia River.

Long-Term Stewardship Information (Proposed Table Format)

PORTION	DESCRIPTION	LTS BEGINS FISCAL YEAR	LTS ENDS FISCAL YEAR	ESTIMATED COSTS
Portion A				
Portion B				
Portion C				
Portion D				

2.3 Institutional and Engineered Controls

- C *Describe the site-wide institutional and engineered controls performed or planned for the site that apply to the whole site.*
- C *Describe surveillance and maintenance, ongoing groundwater treatment, monitoring, security measures, use restrictions, deed restrictions, physical barrier, access controls, and frequency and duration of these activities.*

2.4 Record Keeping Activities

- C *Who is responsible for the record keeping?*
- C *Where are the records? Where are they maintained?*
- C *Where do the records go? Who will maintain them?*
- C *What types of records are being kept?*
- C *How frequently are they updated?*

2.5 Local Community Interaction

LOCAL COMMUNITY INTERACTIONS

[This is an example of a text box for depicting local community interaction related to long-term stewardship. This narrative describes how stakeholders have (or will have) been involved in decisions affecting the site's long-term stewardship activities now and by the end of 2006. Includes avenues for input, such as public meetings, forums, and advisory boards. Describes how stakeholder concerns were addressed in the development of final plans. Also includes contact information.]

3.0 Portion of Site A - Filled and Capped ERDF Cells

[3.0 describes the specific portion of analysis, mission, history, what it is, long-term stewardship activities, costs, physical characteristics. For example, if engineered unit, describe waste type,

describe unit type (e.g cell), provide the number of units, cells or tanks. Provides graphic depiction of the portion.]

3.1 Description of Portion

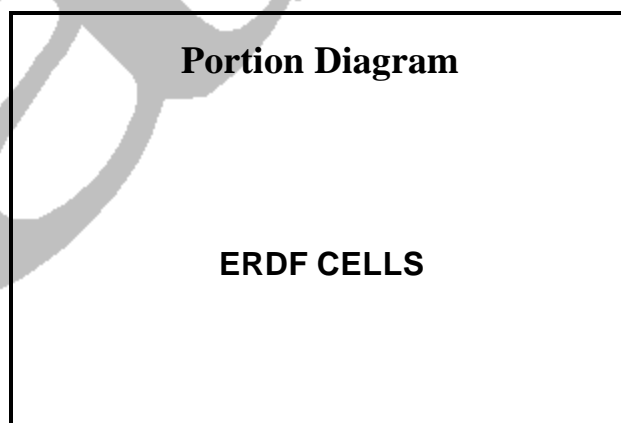
- C *History and current and future mission (s) (if appropriate)*
- C *Institutional and engineered controls*
- C *Acres by land use afforded*
- C *Geology, ecology, geographic distinctness, engineered unit, facilities, etc.*
- C *Who is responsible for LTS, is this stable over time?*
- C *What hazards remain?*
- C *What are the key risks/exposures to be avoided?*
- C *What are the key things we hope to accomplish in LTS?*
- C *What are the key uncertainties? what are the contingency plans?*

3.2 Medium (includes narratives as appropriate - each medium should be addressed separately)

- C *Soil*
- C *Groundwater*
- C *Surface water/sediment*
- C *Engineered units*
- C *Facilities*

3.3 Regulatory Regime

- C *Discuss the regulations governing the portions*



4.0 Portion B of Site Analysis - Stabilized and Cocooned C Reactor

[4.0 describes the specific portion of analysis, mission, history, what it is, long-term stewardship activities, costs, physical characteristics. For example, if engineered unit, describe waste type, describe unit type (e.g cell), provide the number of units, cells or tanks. Provides graphic depiction of the portion.]

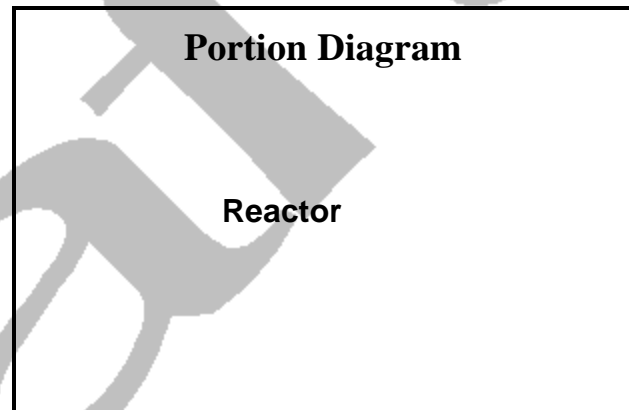
4.1 Description of Portion

- C *History and mission (if appropriate)*

- C Institutional and engineered controls
- C Acres by land use afforded
- C Geology, ecology, geographic distinctness, engineered unit, facilities, etc.
- C Who is responsible for LTS, is this stable over time?
- C What hazards remain?
- C What are the key risks/exposures to be avoided?
- C What are the key things we hope to accomplish in LTS?
- C What are the key uncertainties?
- C What are the contingency plans?

4.2 Medium (includes narratives as appropriate - each medium should be discussed separately)

- C Soil
- C Groundwater
- C Surface water/ sediment
- C Engineered units
- C Facilities



4.3 Regulatory Regime

- C Discuss the regulations governing the portions

5.0 Estimated Long-Term Stewardship Costs

[5.0 provides anticipated or estimated long-term stewardship costs (when available) for the site at a high-level. Annual cost from 2000-2010 or period costs in 5-year increments from 2010-2070 for all LTS activities specific to a medium].

Estimated LTS Costs

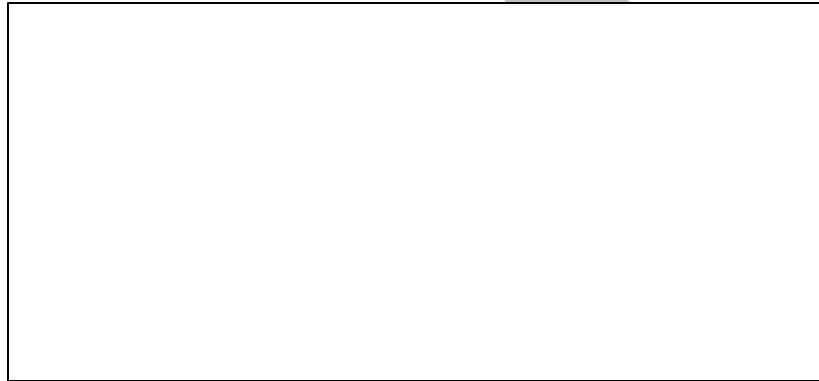
Portion	(Five-Year Averages, Thousands of Constant 2000 Dollars)								Est. Total
	FY 2000	2005	2010	2015	2020	2025	2030	FY 2035 - FY 2070	
Portion A									
Portion B									
Portion C									

Portion D									
Portion E									

6.0 Future Uses

[6.0 describes the different land areas based upon the use afforded. Includes acreage for the particular land use, such as agricultural, industrial, etc. 6.0 will discuss the relationship between land use and long-term stewardship.]

Land Use Map



Appendix A: NDAA Report Language

National Defense Authorization Act (NDAA) Congressional Mandate Report Language

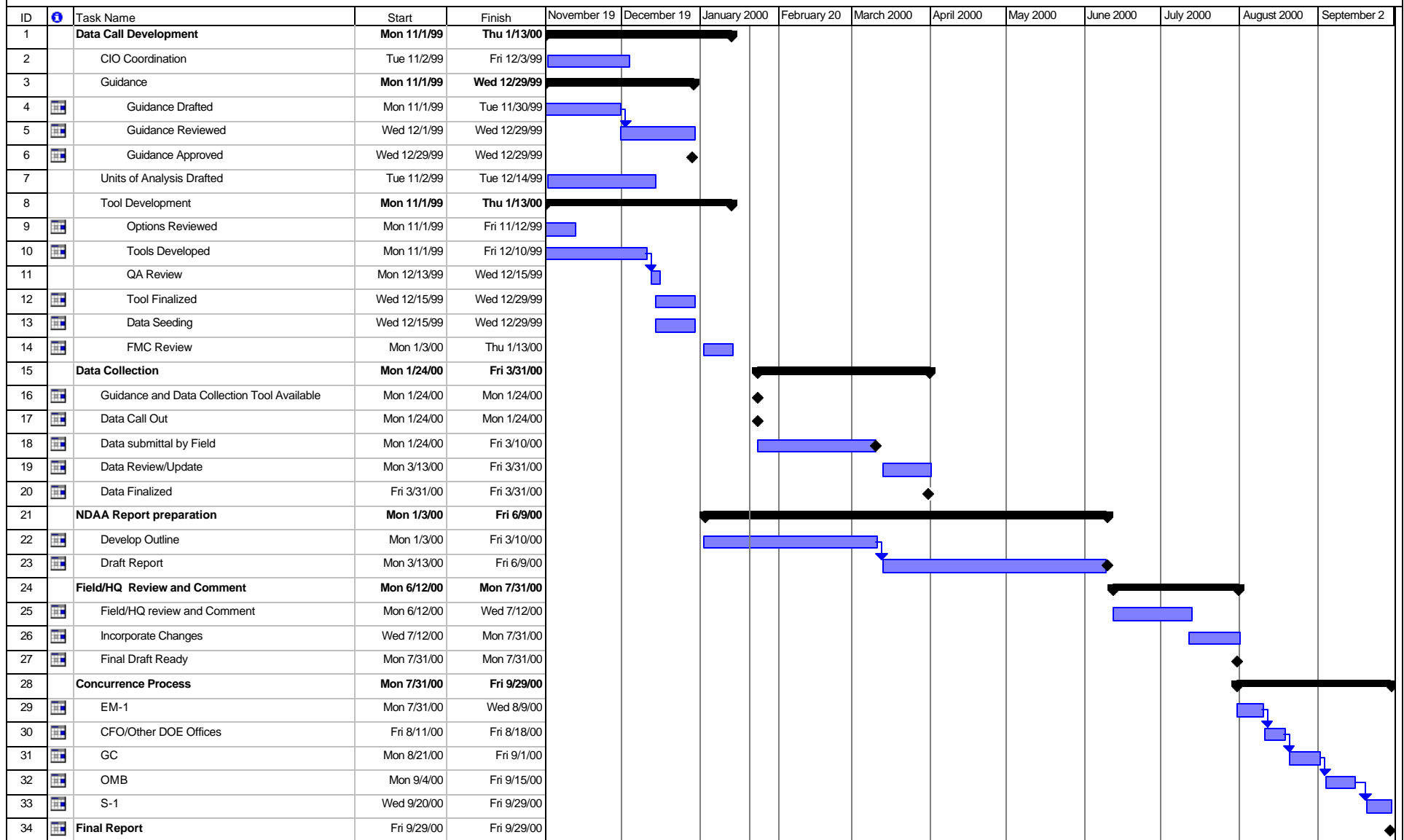
The conferees direct the Secretary of Energy to provide to the Armed Services Committees of the Senate and House of Representatives, not later than October 1, 2000, a report on existing and anticipated long-term environmental stewardship responsibilities for those Department of Energy (DOE) sites or portions of sites for which environmental restoration, waste disposal, and facility stabilization is expected to be completed by the end of calendar year 2006. The report shall include a description of what sites, whole and geographically distinct locations, as well as specific disposal cells, contained contamination areas, and entombed contaminated facilities that cannot or are not anticipated to be cleaned up to standards allowing for unrestricted use. The report shall also identify the long-term stewardship responsibilities (for example, longer than 30 years) that would be required at each site, including soil and groundwater monitoring, record keeping, and containment structure maintenance. In those cases where the Department has a reasonably reliable estimate of annual or long-term costs for stewardship activities, such costs shall be provided.

The Secretary shall attempt to provide sufficient information to ensure confidence in the Department's commitment to carrying out these long-term stewardship responsibilities and to undertake the necessary management responsibilities, including cost, scope, and schedule.

The conferees recognize that in many cases residual contamination will be left after cleanup or will be contained through disposal, and that such residual contamination and wastes will require long-term stewardship to ensure that human health and the environment are protected.

Appendix B: NDAA Report Development Schedule

NDAA LTS REPORT SCHEDULE (DRAFT)



Appendix C: List of Proposed Portions (Draft)

State	Site	Portion	Related Media				
			Soil	GW	Surface Water/Sed.	EU	Facility
AK	Amchitka	Amchitka	Soil	GW	SWS	EU	
AZ	Monument Valley	Monument Valley		GW			
AZ	Tuba City	Tuba City		GW		EU	
CA	Energy Technology Engineering	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
CA	General Atomics	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
CA	General Electric Vallecitos Nuclear	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
CA	Laboratory for Energy Related Health	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
CA	LBNL	Bldg 51/64 VOC/Freon Plume		GW			
		Bldg 71 VOC Plume		GW			
		Bldg 75 Tritium Plume		GW			
		Bldg 7 Diesel Plume		GW			
		Bldg 37 VOC Plume		GW			
		Old Town VOC Plume		GW			
CA	LLNL Main Site	TF-A	Soil	GW	SRS		Facility
CA	LLNL Site 300	OU#1 GSA	Soil	GW	SWS		Facility
		OU #3 Pit 6	Soil	GW	SWS	EU	Facility
		OU #7 Bldg 832 Canyon	Soil	GW	SWS		Facility
CA	Sandia California	Groundwater		GW			
		Navy Landfill				EU	
CA	Stanford Linear Accelerator Center	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
CO	Burro Canyon Disposal Site	Burro Canyon Disposal Site				EU	
CO	Cheney Cell	Cheney Cell				EU	
CO	Cotter, Canon City	Cotter, Canon City				EU	
CO	Durango	Durango		GW		EU	
CO	Estes Gulch	Estes Gulch				EU	
CO	Grand Junction Office	Grand Junction Office		GW			
CO	Grand Junction UMTRA Site	Units not yet determined, information not submitted					
CO	Gunnison Mill Site	Gunnison Mill Site		GW		EU	
CO	HECLA, Durita	HECLA, Durita				EU	
CO	Maybell Mill Site	Maybell Mill Site		GW		EU	
CO	Naturita Site	Naturita Site		GW		EU	
CO	New Rifle Site	New Rifle Site		GW			
CO	Old Rifle Site	Old Rifle Site		GW			
CO	Rio Blanco Site	Rio Blanco Site	Soil	GW			
CO	Rulison Site	Rulison Site	Soil	GW			
CO	Rocky Flats	Units not yet determined, information not submitted					
CO	Slickrock/Old North Continent	Slickrock/Old North Continent		GW			
CO	Slickrock/Union Carbide	Slickrock/Union Carbide		GW			
CO	UMETCO, Maybell	UMETCO, Maybell				EU	
CO	UMETCO, Uravan	UMETCO, Uravan				EU	
FL	Pinellas Plant	Northeast site		GW			
		4.5 acre site		GW			
		Building 100		GW			

State	Site	Portion	Related Media				
			Soil	GW	Surface Water/Sed.	EU	Facility
ID	INEEL	TAN Other				EU	Facility
		TAN Disposal Pond	Soil				
		CFA Drain Field	Soil				
		Warm Waste Pond (OU 2-10)	Soil				
		Buried Gas Cylinders (INTEC)	Soil				
		SFE-20 Hot Waste Tank System	Soil			EU	
		Fuel Reprocessing Complex (INTEC)					Facility
		WAG 3 Other					Facility
		Landfills (OU 4-13)	Soil			EU	
		SL-1 Burial Ground (OU 5-05)	Soil			EU	
		Chemical Evaporation Pond (OU 5-10)	Soil				
		Auxiliary Reactor Area (I, II, and III)					Facility
		PBF Evaporation Pond (OU 5-13)	Soil	GW			
		BORAX-1 Burial ground (OU 6-01)	Soil			EU	
		Other BORAX-Facility					Facility
		EBR-I					Facility
		Pad A (OU 7-12)	Soil			EU	
		Ordnance Area	Soil				
		Security Training Facility Area (ORME)					Facility
		Waster Experimental Reduction Facility					Facility
		Argonne West	Soil				
ID	Lowman	Lowman		GW		EU	
IL	Argonne East	300 Area	Soil	GW		EU	
		800 Area		GW		EU	
		Rest of Site	Soil	GW	SWS		
		CP-5					Facility
IL	Fermi National Accelerator Laboratory	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
IL	Site A/Plot M, Palos Forest Preserve	Site A/Plot M, Palos Forest Preserve				EU	
IA	Ames Laboratory	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
KY	Maxey Flats Disposal Site	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
KY	Paducah Gaseous Diffusion Plant	Paducah Gaseous Diffusion Plant	Soil	GW	SWS		Facility
MS	Salmon Site	Salmon Site	Soil	GW	SWS	EU	
MO	Kansas City	Kansas City	Soil	GW	SWS		
MO	Weldon Spring Site	Quarry Groundwater		GW			
		Chemical Plant		GW		EU	
NE	Hallam Nuclear Power Facility	Hallam Nuclear Power Facility				EU	
NV	Central Nevada Test Area	Central Nevada Test Area	Soil	GW			
NV	Nevada Test Site	Units not yet determined					
NV	Project Shoal Area	Project Shoal Area	Soil	GW			
NJ	Princeton Plasma Physics Lab	Princeton Plasma Physics Lab		GW			
NM	Ambrosia Lake	Ambrosia Lake	GW			EU	

State	Site	Portion	Related Media				
			Soil	GW	Surface Water/Sed.	EU	Facility
NM	Arco Bluewater	Arco Bluewater	GW				
NM	Bayo Canyon	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
NM	Homestake, Grants	Homestake, Grants				EU	
NM	Inhalation Toxicology Laboratory	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
NM	LANL	Units not yet determined					
NM	Gasbuggy Site	Gasbuggy Site	Soil	GW			
NM	Gnome-Coach Site	Gnome-Coach Site	Soil	GW			
NM	Quivera, Ambrosia Lake	Quivera, Ambrosia Lake				EU	
NM	Sandia New Mexico	Groundwater		GW			
		MLLW Landfill				EU	
		Chemical Waste Landfill				EU	
		Corrective Action Management Unit				EU	
		Signed and Fenced Soils	Soil				
		Signed Soils	Soil				
NM	Shiprock	Shiprock		GW			
NM	SOHIO, L-Bar	SOHIO, L-Bar				EU	
NM	South Valley Superfund Site	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
NM	UNC, Church Rock	UNC, Church Rock				EU	
NM	Waste Isolation Pilot Plant	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
NY	Brookhaven	Graphite Research Reactor					Facility
		OU-I-LFs		GW		EU	
		OU-I Old HWMF	Soil	GW	SWS		Facility
		OU-I other rad soils	Soil				
		OU-I other areas of concern	Soil		SWS	EU	
		OU-III plumes-VOC	Soil	GW			
		OU-III plumes- tritium		GW			
		OU-III plumes- Sr-90	Soil	GW		EU	
		OU-V Peconic River Wetlands		GW	SWS		
		OU-VI EDBH plume		GW			
NY	Separations Process Research Unit	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
NY	West Valley Demonstration Project	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
OH	Fernald	Fernald	Soil	GW		EU	
OH	Mound	Mound	Soil	GW			Facility
OH	Piqua Nuclear Power Facility	Piqua Nuclear Power Facility				EU	

State	Site	Portion	Related Media				
			Soil	GW	Surface Water/Sed.	EU	Facility
OH	Portsmouth Gaseous Diffusion Plant	Quadrant I	Soil	GW	SWS	EU	Facility
		Quadrant II	Soil	GW	SWS	EU	Facility
		Quadrant III	Soil	GW	SWS	EU	Facility
		Quadrant IV	Soil	GW	SWS	EU	Facility
OH	Reactive Metals, Inc. (Astabula)	Not in the scope of the NDAA LTS Report data call; will include brief site summary					
OR	Lakeview	Lakeview		GW		EU	
PA	Burrell	Burrell		GW		EU	
PA	Canonsburg	Canonsburg		GW		EU	
PR	Center for Energy and Environmental Research	Units not yet determined, information not submitted					
SC	Savannah River Site	F - Tank Area					
		H - Tank Area					
		HWECTR					
		247 - F					
		M - Area					
		Upper 3 Runs					
		Lower 3 Runs					
		Steel Creek					
		Pen Branch					
		4 - Mile Branch					
		SR Flood Plain Swamp					
SD	Edgemont Vicinity Properties	Edgemont Vicinity Properties				EU	
TN	Oak Ridge Reservation	Bear Creek Watershed	Soil	GW	SWS	EU	Facility
		East Fork Poplar Creek Watershed	Soil	GW	SWS	EU	Facility
		Bethel Valley Watershed	Soil	GW	SWS	EU	Facility
		East Tennessee Technology Park Watershed	Soil	GW	SWS	EU	Facility
		Melton Valley Watershed	Soil	GW	SWS	EU	Facility
		Off-Site	Soil	GW	SWS		Facility
TX	Cheveron, Panna Maria	Cheveron, Panna Maria		GW		EU	
TX	Conoco, Conquista	Conoco, Conquista				EU	
TX	Exxon, Ray Point	Exxon, Ray Point				EU	
TX	Falls City	Falls City		GW		EU	
TX	Pantex	Risk Reduction Standard #2	Soil	GW	SWS		Facility
		Risk Reduction Standard #3	Soil	GW	SWS	EU	
UT	Atlas, Moab	Atlas, Moab				EU	
UT	EFN, White Mesa	EFN, White Mesa				EU	
UT	Green River	Green River		GW		EU	
UT	Mexican Hat	Mexican Hat		GW		EU	
UT	Monticello Millsite & Vicinity Properties	Millsite				EU	
		VPs					
		Groundwater		GW			
UT	Plateau, Shootaring	Plateau, Shootaring				EU	
UT	Rio Algom, Lisbon Valley	Rio Algom, Lisbon Valley				EU	
UT	Salt Lake City	Salt Lake City		GW			
UT	Sat Lake City, Clive	Sat Lake City, Clive				EU	
WA	Dawn, Ford	Dawn, Ford				EU	

State	Site	Portion	Related Media				
			Soil	GW	Surface Water/Sed.	EU	Facility
WA	Hanford	1100 Area	Soil			EU	
		North Slope	Soil				
		Riverland					
		100 BC Area	Soil				Facility
		100 D Area	Soil				Facility
		100 F Area	Soil				Facility
		100 H Area outside of reactor buffer fence line					
		100 K Area outside of reactor buffer fence line					
		100 N Area outside of reactor buffer fence line					
		100 Other Area					
		ERDF Cell				EU	
		GW Plume 200 P01		GW			
		300 Area Groundwater		GW			
		300 Area, Operable Unit FF-1					
WA	WNI, Sherwood	WNI, Sherwood				EU	
WV	Amax	Amax				EU	
WY	ANC, Gas Hills	ANC, Gas Hills				EU	
WY	Exxon, Highlands	Exxon, Highlands				EU	
WY	Kennecott, Sweetwater	Kennecott, Sweetwater				EU	
WY	Pathfinder, Lucky Mac	Pathfinder, Lucky Mac				EU	
WY	Pathfinder, Shirely Basin	Pathfinder, Shirely Basin				EU	
WY	Petrotomics, Shirley Basin	Petrotomics, Shirley Basin		GW		EU	
WY	Riverton	Riverton		GW			
WY	Spook	Spook		GW		EU	
WY	UMETCO, Gas Hills	UMETCO, Gas Hills				EU	
WY	Union Pacific, Bear Creek	Union Pacific, Bear Creek		GW		EU	
WY	WNI, Split Rock	WNI, Split Rock		GW		EU	